SERVICE MANUAL

INDUCTION COOKERS

708-1724

Model VI22 shown

MODEL	ML
VI2	114713
VI3	114714
VI22	114715
VI33	114716
VI23	114717

- NOTICE -

This Manual is prepared for the use of trained Vulcan Service Technicians and should not be used by those not properly qualified. If you have attended a Vulcan Service School for this product, you may be qualified to perform all the procedures described in this manual.

This manual is not intended to be all encompassing. If you have not attended a Vulcan Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Vulcan Service Technician.

Reproduction or other use of this Manual, without the express written consent of Vulcan, is prohibited.

A product of VULCAN-HART LOUISVILLE, KY 40201-0696

Form 24591 (Rev. A, 12-98) Supercedes (5-97)

TABLE OF CONTENTS

GENERAL 3
Introduction 3
How to Distinguish a Usable Pan 3
Usable Pans Which Have Slower Rates of Heat Transfer 3
Recommended Pans 4
Unusable Pans 5
Tools 5
Location 5
Controls 5
Specifications 6
Cleaning 6

REMOVAL AND REPLACEMENT OF PARTS 7
Top Cover 7
Inverter Assembly 7
Fan Motors 8
Controller Board, Led and Potentiometer 9
Knob Gasket 9
Inverter Coil 9
High Voltage Board 10
Low Voltage Board 10
EMI Board 11
Fuse on EMI Board 11
Thermistor, Tension Spring and Support 11

SERVICE PROCEDURES AND ADJUSTMENTS 12
Thermistor Test 12
Controller Board Potentiometer Test 12
High Voltage Board Test 12
Inverter Coil Test 13
Power Output Adjustment 13
Access Hole Modification 16
Transformer Test 18

ELECTRICAL OPERATION 18
Component Function 18
Component Location 19
Sequence of Operation 20
Plug Layout 21
Wiring Diagram 22

TROUBLESHOOTING 24

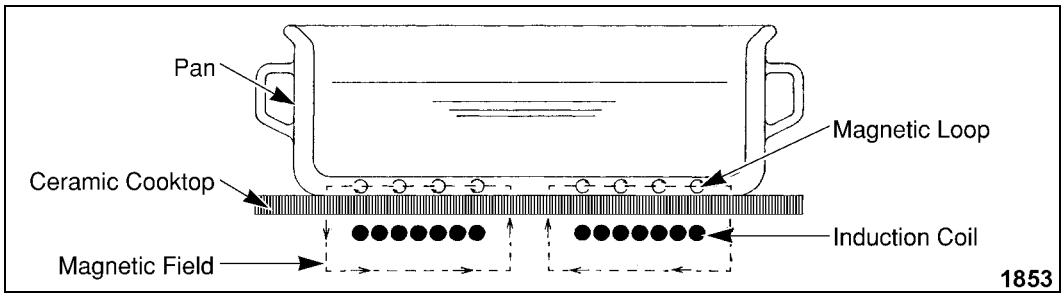
© VULCAN 1997, 1998

GENERAL

INTRODUCTION

Model VI2 is a single 2.2KW cooker.
Model VI3 is a single 3KW cooker.
Model VI22 is a double 2.2KW cooker.
Model VI33 is a double 3KW cooker.
Model VI23 is a double cooker with one 2.2KW cooker and one 3KW cooker.

The induction cooktop will not heat the way a resistance heater conducts to the pan. A magnetic induction coil is beneath the ceramic top. This coil creates a magnetic field that requires a steel or iron pan to complete the magnetic loop. If the pan is not present, the cooktop stays in a “cool” ready state without using much current. It is necessary to use iron or steel pans, or special pans designed for induction use. Ceramic, glass, pottery and some special stainless steel pans will not complete the magnetic loop and, therefore, will not heat properly, and should not be used.

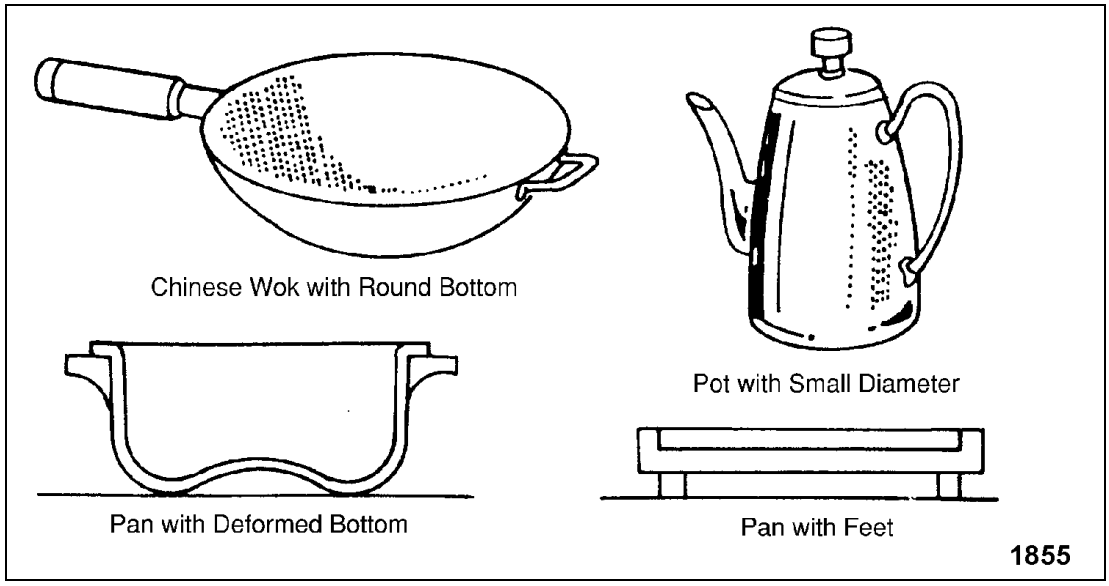


How to Distinguish a Usable Pan

Put the pan filled with water on the center of the cooktop and turn the control knob to the desired cooking level. The indicator light will light continuously for a usable pan and will blink for an unusable pan.

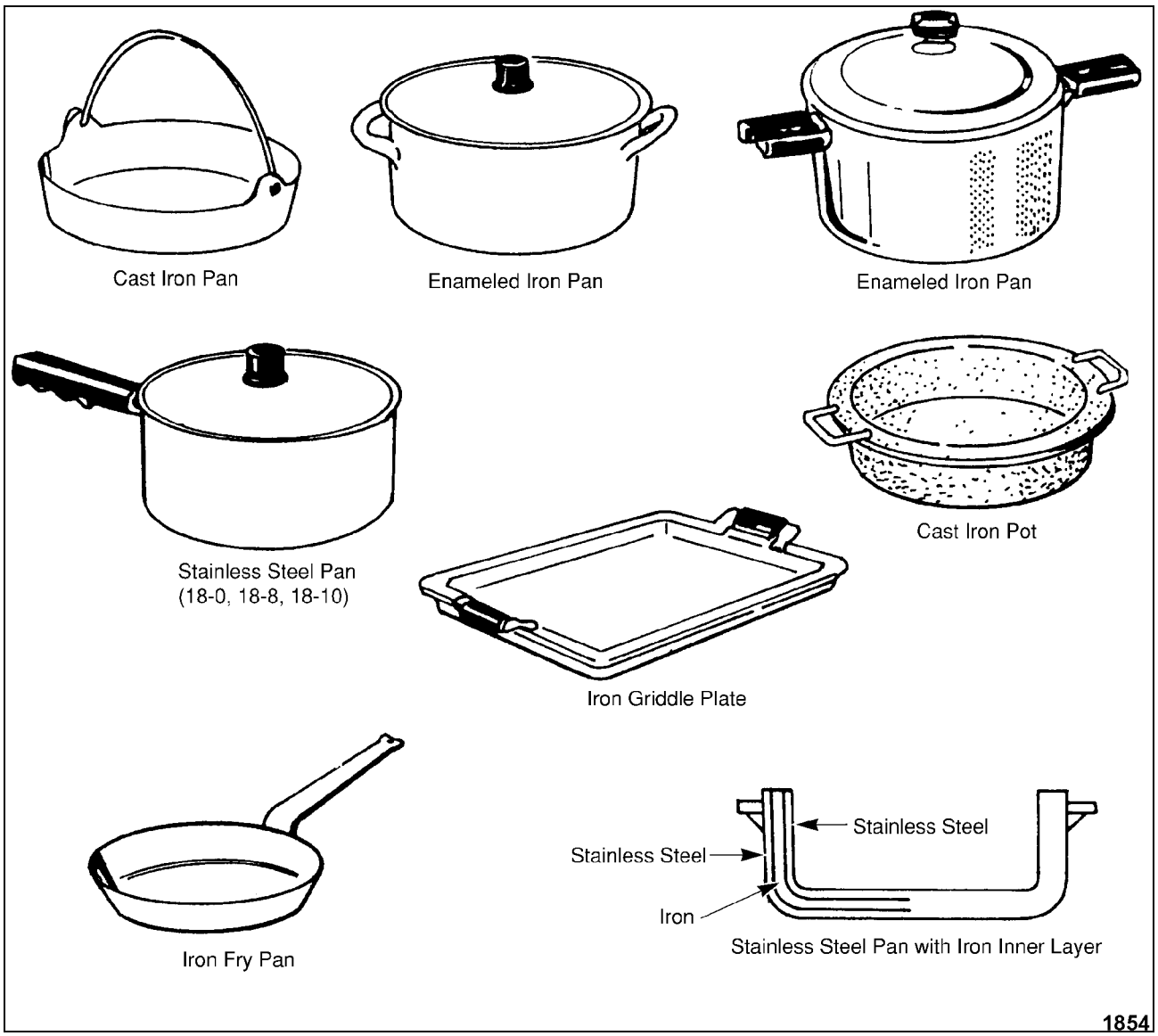
Usable Pans Which Have Slower Rates of Heat Transfer

Pans with smaller bottom diameter or partially contacting bottom may be usable but will have reduced heat transfer rates. These may be acceptable for warming but not for frying.



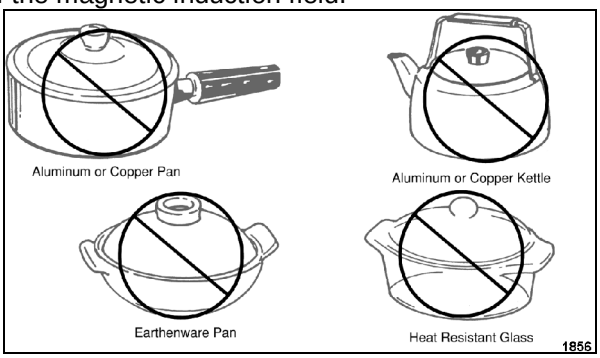
Recommended Pans

Pans made of cast iron, enameled iron, or stainless steel with an iron inner layer are recommended. Stainless steel pans with 18-0, 18-8, 18-10, and 18-Cr material are acceptable if a magnet will attach itself to the pan and if the shape of the pan is acceptable. Pans with a flat bottom 5" to 10½" in diameter are recommended. Thin pans may deform during heating; a thicker wall and bottom are recommended. Pans made of 18-8 stainless steel and pans with a smaller diameter bottom may have slower rates of heat transfer.



Unusable Pans

Pans made of porcelain, earthenware, heat-resistant glass, copper, or aluminum are not recommended because they do not transfer heat from the magnetic induction field.



TOOLS

- Standard set of hand tools
- VOM with AC current tester (Any VOM with a sensitivity of at least 20,000 ohms per volt can be used.)
- Thermal compound Part # 819643
- Demeyere sauce pan with 26cm top opening and 24cm bottom PMI Part # 424971-1
- Fiberglass screwdriver Part # 424998-1
- Field Service Grounding Kit Part #TL-84919

LOCATION

Position the cooktop on a suitable level countertop surface. Do not locate the cooktop near fryers, a hot stove, or over an oven. The electrical controls inside the cooktop will shut down if they overheat (above 110°F). Refer to the Installation and Operation Manual for complete installation instructions.

CONTROLS

Control Knob — Turn counterclockwise to OFF; clockwise to desired cooking level.

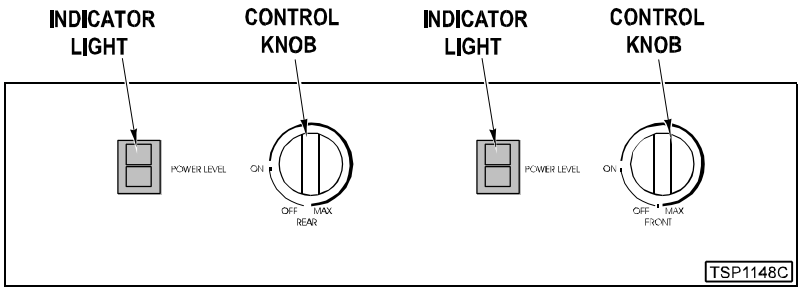
Indicator Light:

On — Indicates that power is ON and at what cooking level.

Blinking — If the indicator light blinks continuously, it indicates the cooktop is in stand-by mode. This means no pan is detected and heat is OFF. Cooktop will shut off in 3 minutes.

If cooktop is in stand-by and has shut off after 3 minutes, it must be reset. Reset cooktop by turning control knob to OFF, then ON to desired cooking level.

If the indicator light blinks intermittently for 2 or 3 seconds and then stops, it indicates an elevated cooking temperature of 380°F or higher. This is normal. The cooktop is ensuring that maximum internal temperatures are not exceeded.



DOUBLE COOKER CONTROLS SHOWN

SPECIFICATIONS

MODEL	VOLTAGE	PLUG TYPE	MAX. AMPS	BREAKER SIZE
VI2	208/60/1 220/240/60/1	6-20P	10.6 9.1/9.1	15 15
VI3	208/60/1 220/240/60/1	6-20P	14.6 12.3/12.5	15 15
VI22	208/60/1 220/240/60/1	6-30P	21.2 18.2/18.2	30 30
VI23	208/60/1 220/240/60/1	6-30P	25.2 21.4/21.6	30 30
VI33	208/60/1 220/240/60/1	6-30P	29.2 24.6/25.0	30 30

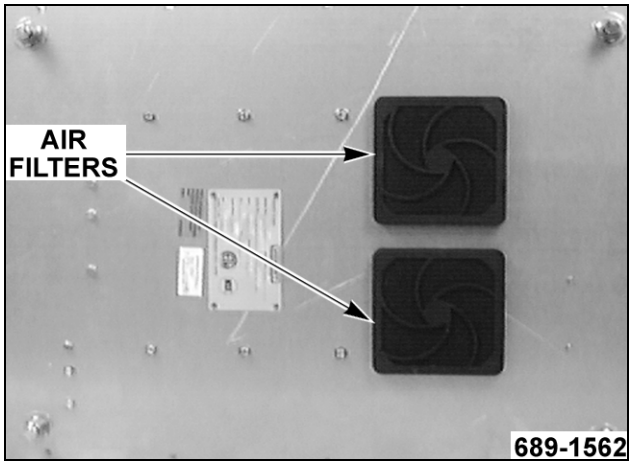
CLEANING

WARNING: DISCONNECT ELECTRICAL POWER BEFORE CLEANING.

Clean the ceramic cooktop surface by using a cloth moistened in warm water, or a solution of detergent and warm water. For stubborn stains, ScotchBrite or a soft paste of cleanser may be used; do not use abrasive materials or harsh scouring action because this could damage the surface.

Snap out air filters located on the bottom of the cooktop and wash them in a sink. Dry filters before reinstalling.

NOTE: Do not operate without filters in place. Filters must be kept clean to prevent unit from overheating. Keep area around unit clear to insure proper air circulation.



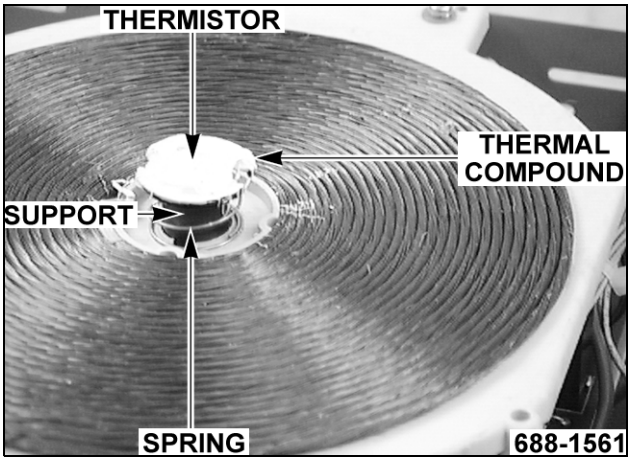
REMOVAL AND REPLACEMENT OF PARTS

TOP COVER

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove the screws securing the top cover to the back of the unit.
2. Turn the unit on its side to access and remove the screws securing the cover to the bottom.
3. Put the unit upright and pull the top cover straight off so not to smear the thermal compound.
4. Disconnect the lead wires at the controller board if necessary.
5. Reverse procedure to install.

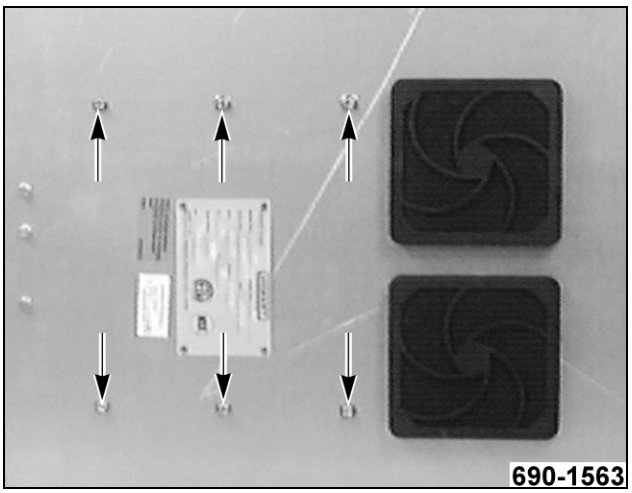
NOTE: There must be sufficient thermal compound applied to center of inverter coil to contact top cover when it is installed.



INVERTER ASSEMBLY

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove the top cover as outlined under “TOP COVER”.
2. Identify and disconnect the fan plugs.
3. Remove any cable ties securing fan wires to inverter frame.
4. Disconnect power leads from terminal block and remove screws securing terminal block to base.
5. Remove cable clamp securing ferrite filter on ground wire.
6. Remove controller board and potentiometer as outlined in “CONTROLLER BOARD, LED AND POTENTIOMETER”.
7. Remove six screws securing inverter assembly to the base.



8. Reverse procedure to install.
9. Apply a liberal amount of thermal compound to thermistor in center of inverter coil to contact top cover as noted in “TOP COVER”.
10. Adjust power output as outlined under “POWER OUTPUT ADJUSTMENT”.

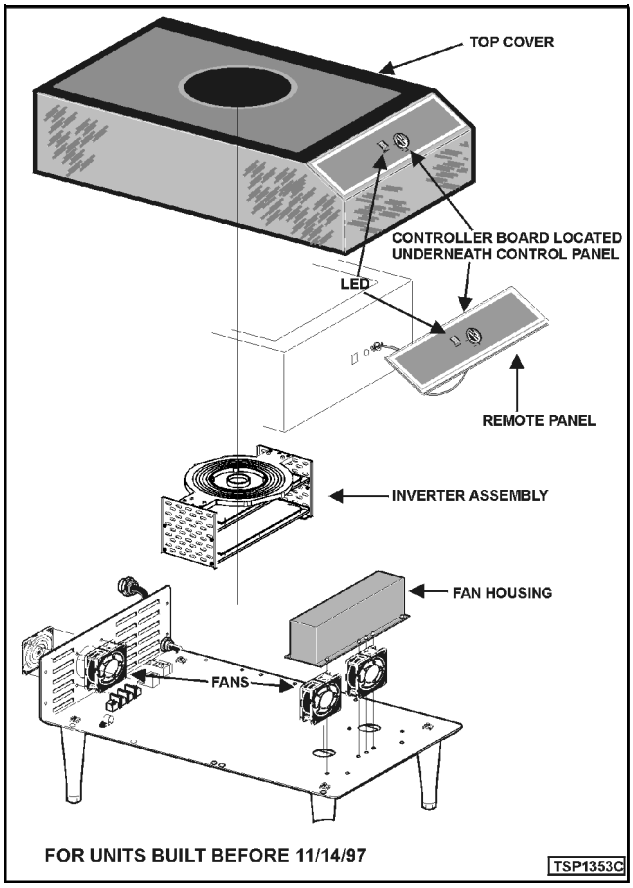
FAN MOTORS

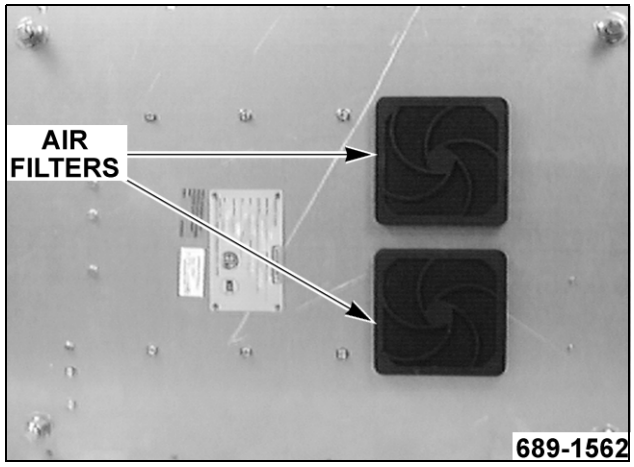
WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove the top cover as outlined under “TOP COVER”.
2. Disconnect the lead wire plug for the fan motor being removed.

Units Built Before 11/14/97

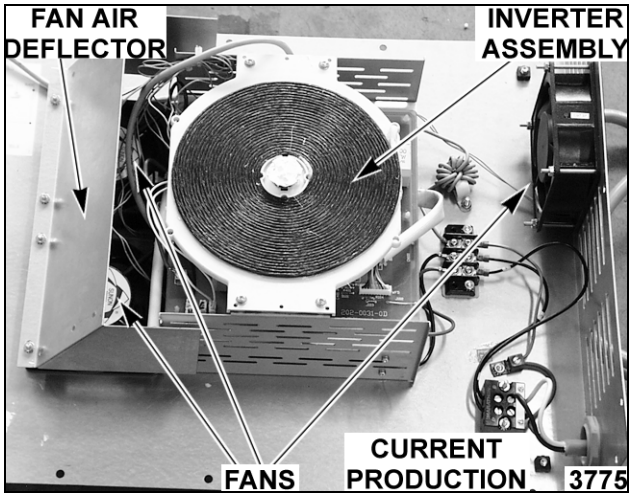
1. Intake fan only:
   - A. Snap off filters located underneath unit.
   - B. Remove screws securing fan housing to base.
   - C. Remove fan housing.
   - D. Remove fan from fan housing.
2. Discharge fan:
   - A. Remove fan.





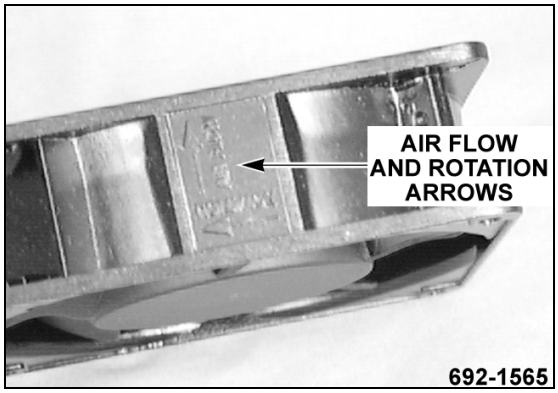
Current Production Units

1. Intake fan only:
   - A. Snap off filters located underneath unit.
   - B. Remove screws securing fan air deflector to base.
   - C. Remove fan air deflector.
   - D. Remove remaining screws securing fan to be removed.



2. Reverse procedure to install.

NOTE: Fans have arrows indicating direction of air flow and rotation. Air flow is entering unit through base and exiting out rear of unit.

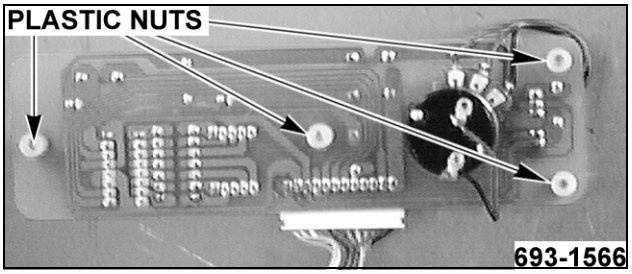


CONTROLLER BOARD, LED AND POTENTIOMETER

WARNING: UNPLUG UNIT BEFORE SERVICING.

CAUTION: Certain components in this system are subject to damage due to electro-static discharge during field repairs. A Field Service Kit is available to prevent this damage. This Field Service Kit must be used anytime a component or circuit board is handled. Specific instructions are included with the kit.

1. Remove the top cover as outlined under “TOP COVER”.
2. Remove the knob by pulling off from the controller board on the front of the unit.
3. Unplug cable from controller board.
4. Remove the plastic nuts that secure the controller board to the top cover.

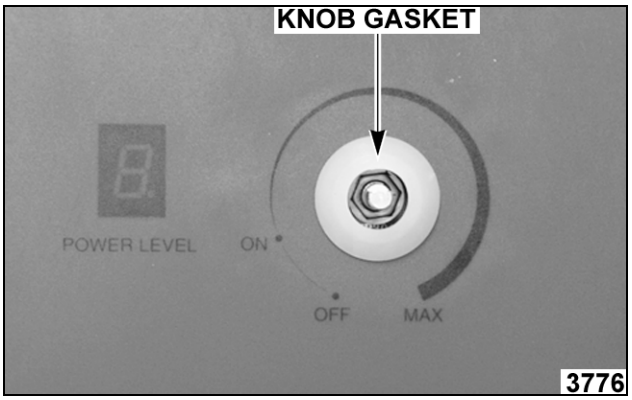


5. Remove potentiometer mounting nut if pot is being replaced.
6. Unplug LED from board if LED is being replaced.
7. Reverse procedure to install.

KNOB GASKET

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove the controller board as outlined under “CONTROLLER BOARD, LED AND POTENTIOMETER”.
2. Pry out gasket from inside top cover.



3. Reverse procedure to install.

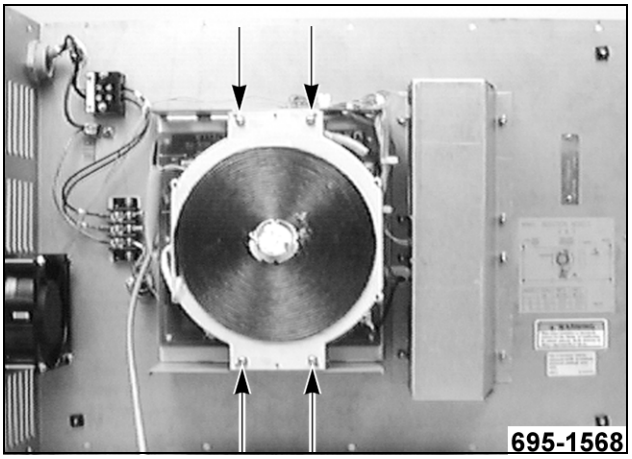
INVERTER COIL

WARNING: UNPLUG UNIT BEFORE SERVICING.

CAUTION: Certain components in this system are subject to damage due to electro-static discharge during field repairs. A Field Service Kit is available to prevent this damage. This Field Service Kit must be used anytime a component or circuit board is handled. Specific instructions are included with the kit.

1. Remove the top cover as outlined under “TOP COVER”.
2. Remove screws holding the inverter coil to the inverter assembly frame.

NOTE: Watch for spacing washers under inverter coil between coil and frame on 208 volt units. These spacers must be installed to insure proper operation.



3. Position the inverter coil on its side to access the lead wires.
4. Disconnect the lead wires from the high voltage board.

NOTE: The lead from the inner portion of the inverter coil connects to the “L” terminal and the lead from the outer portion connects to the “M” terminal. These leads must also be twisted and then connected properly.

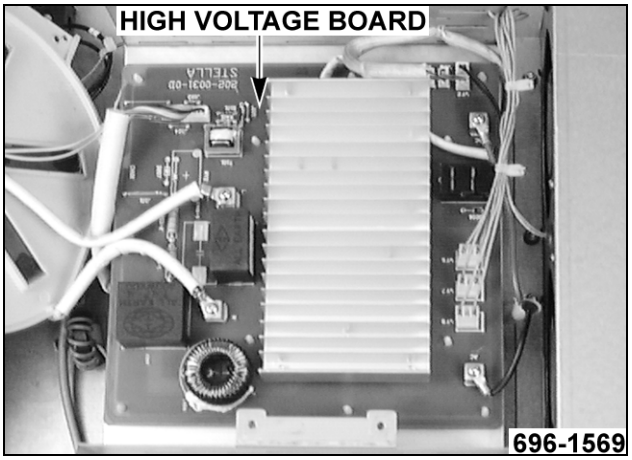
5. Remove thermistor, tension spring and support as outlined in “THERMISTOR, TENSION SPRING AND SUPPORT”
6. Reverse procedure to install.
7. Adjust power output as outlined under “POWER OUTPUT ADJUSTMENT”.

HIGH VOLTAGE BOARD

WARNING: UNPLUG UNIT BEFORE SERVICING.

CAUTION: Certain components in this system are subject to damage due to electro-static discharge during field repairs. A Field Service Kit is available to prevent this damage. This Field Service Kit must be used anytime a component or circuit board is handled. Specific instructions are included with the kit.

1. Remove the top cover as outlined under “TOP COVER”.
2. Remove the inverter coil as outlined under “INVERTER COIL”.
3. Disconnect the lead wires for the high voltage board.



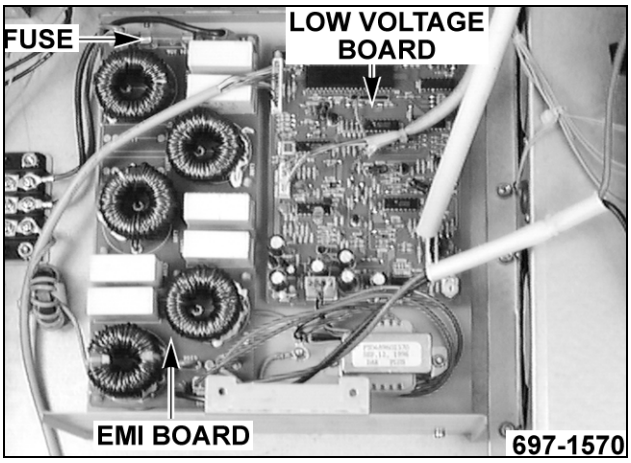
4. Remove the screws that secure the high voltage board mounting plate to the inverter assembly frame.
5. Reverse the procedure to install.
6. Adjust power output as outlined under “POWER OUTPUT ADJUSTMENT”.

LOW VOLTAGE BOARD

WARNING: UNPLUG UNIT BEFORE SERVICING.

CAUTION: Certain components in this system are subject to damage due to electro-static discharge during field repairs. A Field Service Kit is available to prevent this damage. This Field Service Kit must be used anytime a component or circuit board is handled. Specific instructions are included with the kit.

1. Remove the high voltage board as outlined under “HIGH VOLTAGE BOARD”.
2. Disconnect the lead wires to the low voltage board.



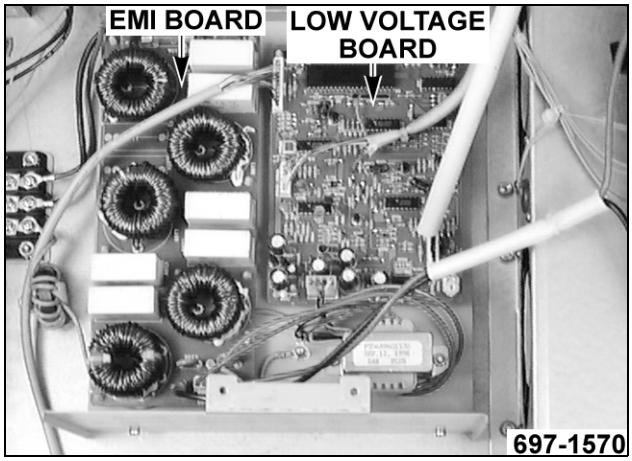
3. Push in the tabs of the pins that secure the low voltage board and remove the board from the mounting plate.
4. Reverse the procedure to install.
5. Adjust power output as outlined under “POWER OUTPUT ADJUSTMENT”.

EMI BOARD

WARNING: UNPLUG UNIT BEFORE SERVICING.

CAUTION: Certain components in this system are subject to damage due to electro-static discharge during field repairs. A Field Service Kit is available to prevent this damage. This Field Service Kit must be used anytime a component or circuit board is handled. Specific instructions are included with the kit.

1. Remove the high voltage board as outlined under “HIGH VOLTAGE BOARD”.
2. Disconnect the lead wires to the EMI board.



3. Push in the tabs of the pins that secure the EMI board and remove the board from the mounting plate.
4. Reverse the procedure to install.
5. Adjust power output as outlined under “POWER OUTPUT ADJUSTMENT”.

FUSE ON EMI BOARD

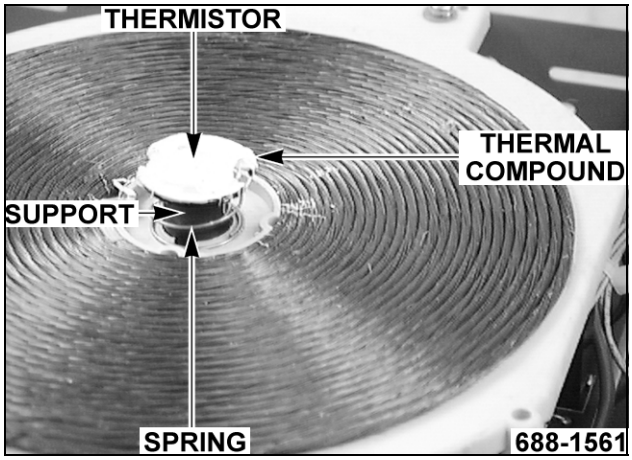
WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove fuse using needle nose pliers or small screwdriver.

THERMISTOR, TENSION SPRING AND SUPPORT

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove the top cover as outlined under “TOP COVER”.
2. Unplug thermistor from the high voltage board.
3. Depress thermistor support assembly and rotate 90°.



4. Withdraw thermistor support assembly from inverter coil.
5. Reverse the procedure to install.

NOTE: Apply generous amount of thermal compound to top of thermistor support assembly.

SERVICE PROCEDURES AND ADJUSTMENTS

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TEST OR MEASUREMENTS WHILE THE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

NOTE: Make sure all plugs are properly connected before applying power. Circuit boards have a special coating on them so handle carefully.

THERMISTOR TEST

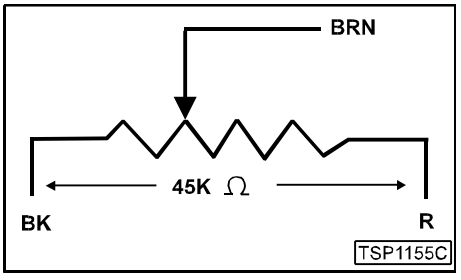
WARNING: UNPLUG UNIT BEFORE SERVICING.

At room temperature resistance should be approximately 120,000 ohms. As temperature increases, resistance decreases.

CONTROLLER BOARD POTENTIOMETER TEST

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove the controller board as outlined under “CONTROLLER BOARD, LED and POTENTIOMETER”.
2. Unplug both potentiometer leads.
   A. Check ON/OFF switch portion operation of potentiometer with ohm meter.
   B. Check potentiometer according to diagram.

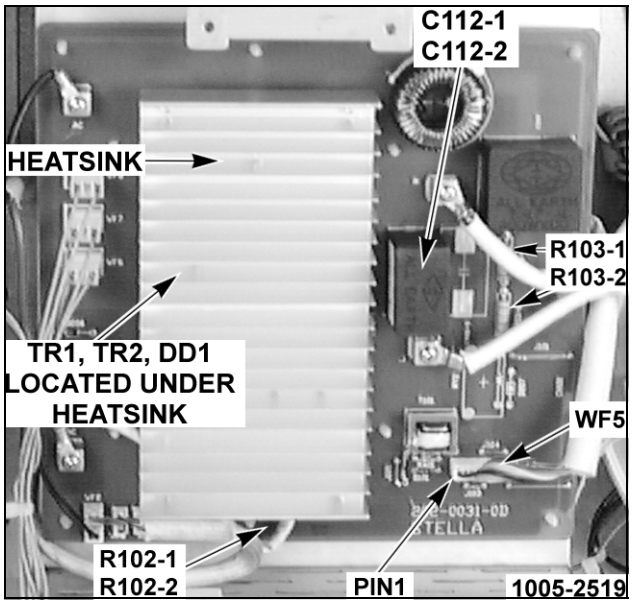


3. Replace potentiometer if either test fails. Potentiometer is secured with a nut.
4. Reverse the procedure to install.

HIGH VOLTAGE BOARD TEST

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Unplug all connectors on high voltage board.
2. Check R102-1 and R102-2. Each should be approximately 130,000 ohms.
3. Check R103-1 and R103-2. Each should be approximately 68,000 ohms.
4. If either test fails, replace the high voltage board.



5. To check components C112-1, C112-2, TR1, TR2 and DD1, disconnect the inverter coil from the high voltage board.
   A. Unplug WF5.
   B. Set VOM for 20M scale.
   C. Connect VOM negative lead to pin 4 of WF5 on the board.

   NOTE: Pin 1 is nearest the heatsink.

   D. Connect VOM positive lead to the heatsink.

E. A reading greater than 2 meg ohms should be observed. It may take 10 to 15 seconds to reach this value.

F. To check collector/base of TR1 and TR2, keep VOM positive lead on the heatsink and connect the VOM negative lead to pin 6 of WF5 on the board.

G. A reading of more than 0 meg ohms should be observed.

6. If either test in step 4 fails, replace the high voltage board and perform “POWER OUTPUT ADJUSTMENT”.

NOTE: Not all components on the board have been checked in above tests. A failure could still exist that would require board replacement.

INVERTER COIL TEST

WARNING: UNPLUG UNIT BEFORE SERVICING.

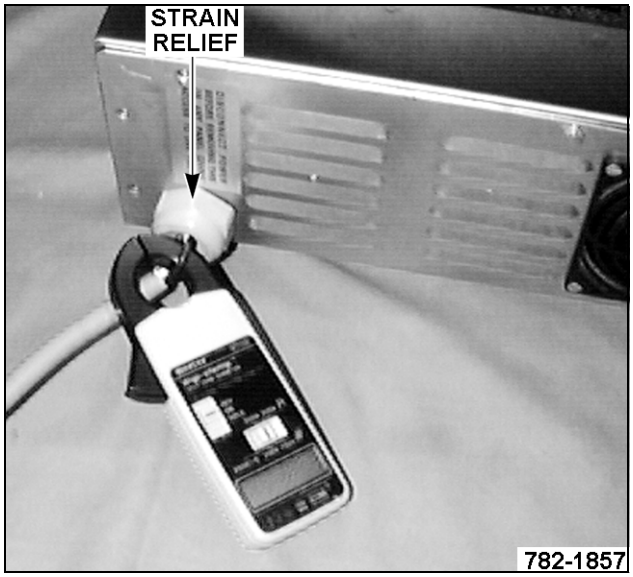
1. Disconnect one coil lead from high voltage board.
2. Test continuity of coil with ohm meter.
   A. If your meter can be adjusted for zero ohms, do so.
   B. Test continuity of coil. Reading should be zero ohms.
   C. If meter cannot be adjusted, test continuity of coil. Reading will be about .2 ohms or the resistance of the meter leads you are using.
3. If coil reads open, replace inductor coil.

POWER OUTPUT ADJUSTMENT

NOTE: On units built prior to 11/14/97, check for potentiometer adjustment access hole in base. If no hole is found, refer to “ACCESS HOLE MODIFICATION”.

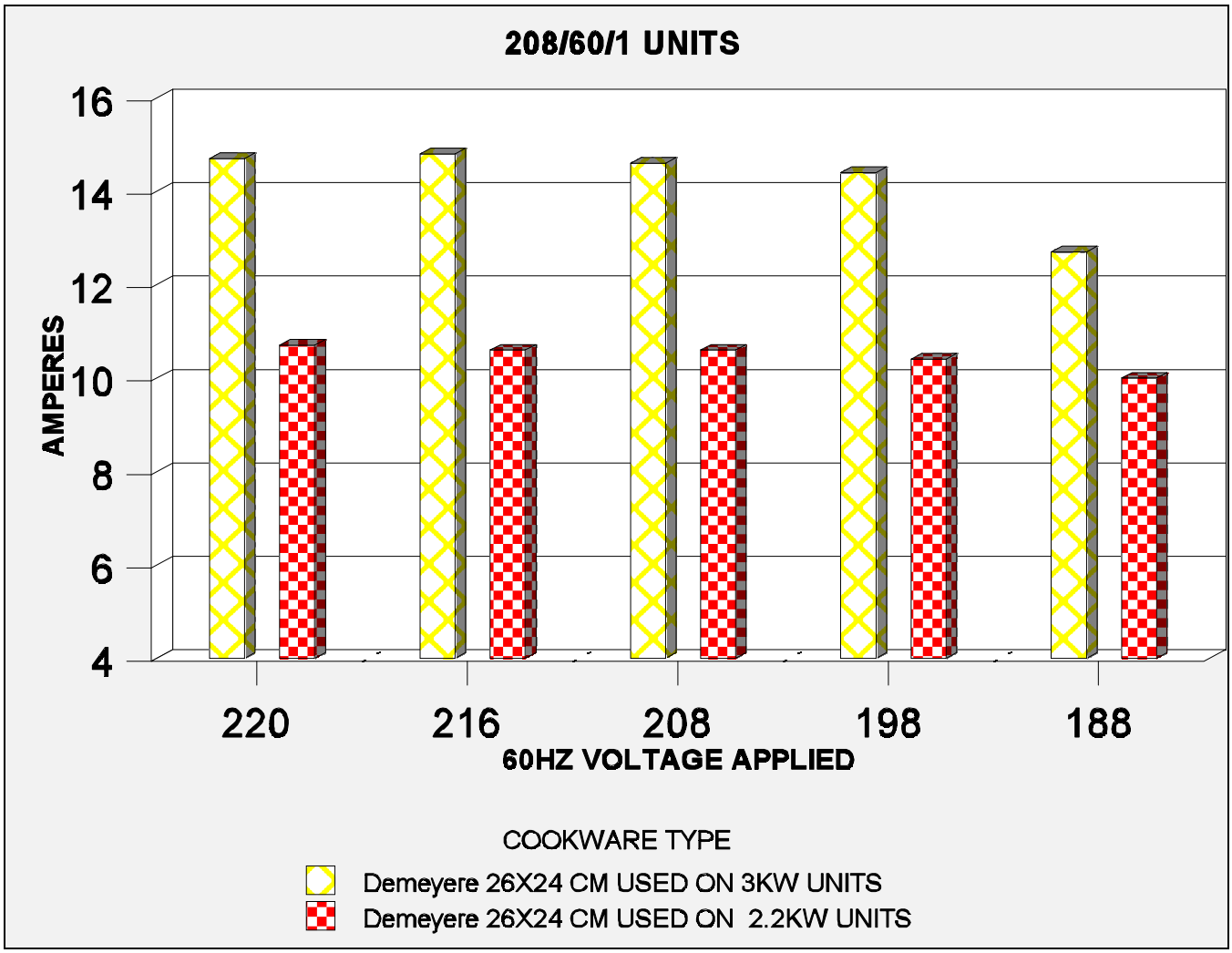
NOTE: Test and adjust coils independently.

1. Use Demeyere Apollo Series sauce pan PMI Part #424971-1 when performing this adjustment.
   A. Partially fill pan with water, place on center of cooking zone of cooker being tested and set power control to maximum.
2. Measure and record line voltage under load.
3. Unplug power cord.
4. Remove the top cover as outlined under “TOP COVER”.
5. Loosen the power cord strain relief connector and withdraw the power cord enough to attach an amp meter outside the case.



6. Install the top cover and the screws securing it to the center of the base to prevent the base from flexing downward.
7. Connect the power.
8. Place pan with water on center of cooking zone of cooker being tested and set power control to maximum.
9. Read the amp meter and compare reading to the following charts.

AMPERE DRAW AT SPECIFIC VOLTAGES FOR 208/60/1 UNITS @ #9 SETTING.

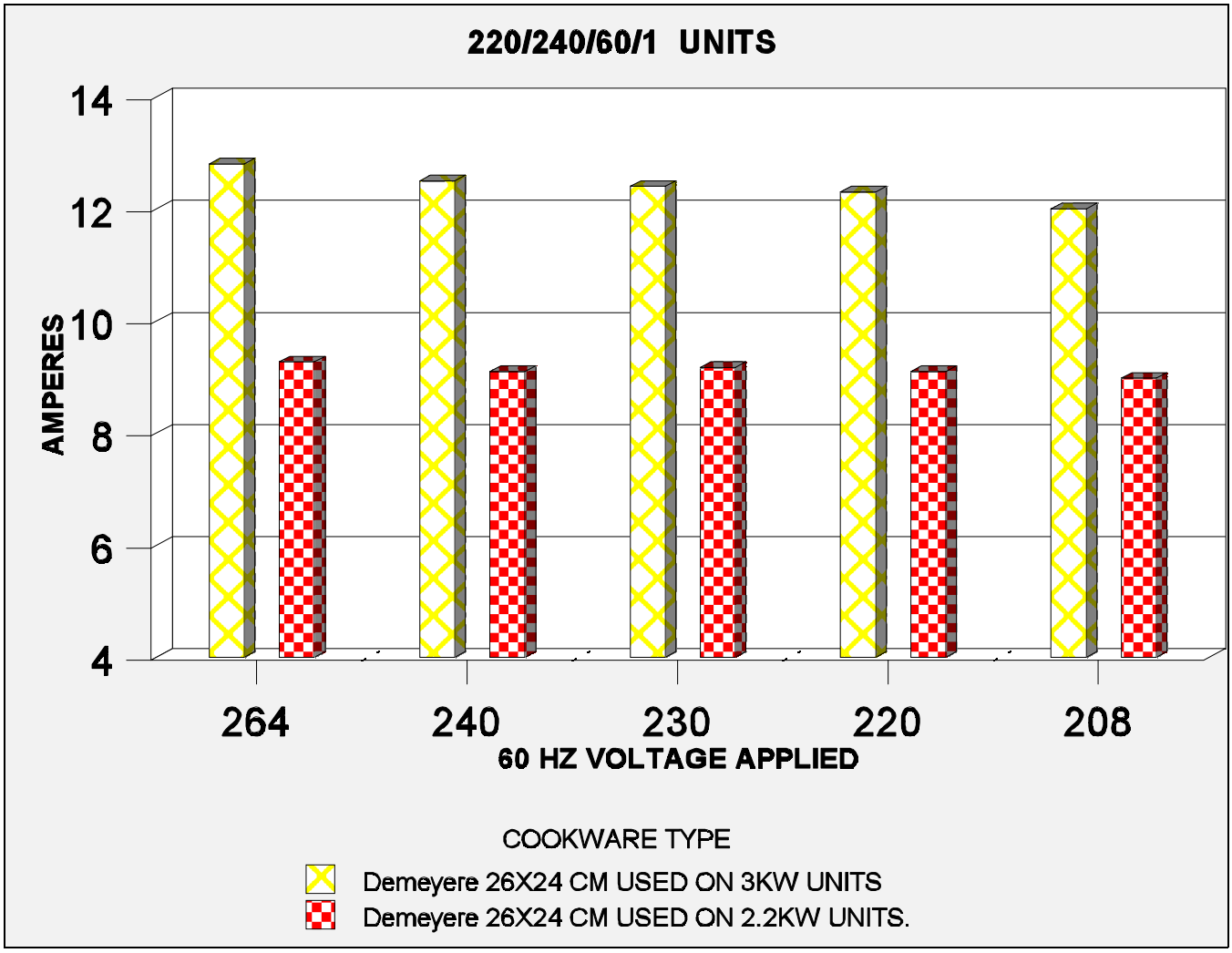


NOTE: Chart is for single coil.

UNITS WITH 208V/60HZ DATA PLATES										
SUPPLY VOLTAGE	220		216		208		198		188	
KW RATING OF COOKTOP ZONE	3	2.2	3	2.2	3	2.2	3	2.2	3	2.2
DEMEYERE APOLLO SERIES FRYING PAN 26CM TOP X 24CM BOTTOM. AMPS @ #9 SETTING.	14.7	10.7	14.8	10.6	14.6	10.6	14.4	10.4	12.7	10

NOTE: 208V units must have a nominal line voltage of 208V.

AMPERE DRAW AT SPECIFIC VOLTAGES FOR 220/240/60/1 UNITS AT @9 SETTING.



NOTE: Chart is for single coil.

UNITS WITH 220/240/60HZ DATA PLATES										
SUPPLY VOLTAGE	264		240		230		220		208	
KW RATING OF COOKTOP ZONE	3	2.2	3	2.2	3	2.2	3	2.2	3	2.2
DEMEYERE APOLLO SERIES FRYING PAN 26CM TOP X 24CM BOTTOM. AMPS @ #9 SETTING.	12.8	9.3	12.5	9.1	12.4	9.2	12.3	9.1	12	9

NOTE: 220/240V units must have a nominal line voltage of 220/240V.

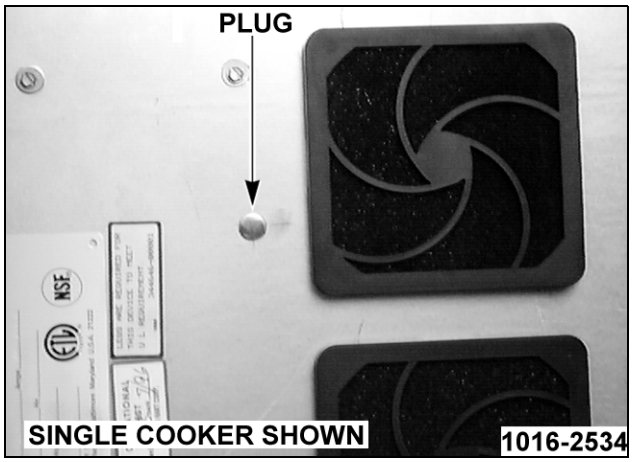
10. Turn the potentiometer on the low voltage board to obtain the correct current for the applied voltage measured in Step 2.

NOTE: Do not exceed current for applied voltage for specific test pan. Damage to unit will result.

A. To adjust if unit has potentiometer access hole in base:

1) Remove pan from cooker.

2) Remove plug from adjustment hole.



CAUTION: Use only a fiberglass (or insulated shaft) screwdriver to avoid shock and damage to unit.

3) Securely elevate and level unit as necessary to access hole with fiberglass (or insulated shaft) screwdriver.

4) Place pan with water on center of cooking zone of cooker being tested.

5) Use the fiberglass (or insulated shaft) screwdriver and pass it through the hole in the base to the potentiometer on the low voltage board. Turn potentiometer counterclockwise to increase power output or clockwise to decrease power output.

6) Repeat step 5) until reading is correct.

7) Install plug in access hole in base.

B. If unit does not have an access hole in base:

1) Unplug power cord.

2) Drill a hole as outlined under “ACCESS HOLE MODIFICATION”.

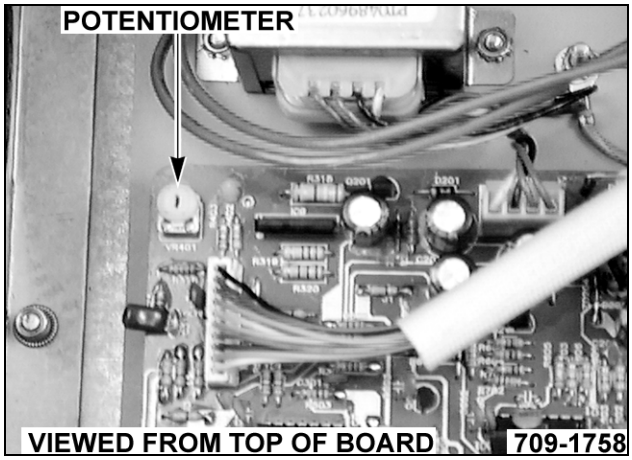
3) Perform step A .

ACCESS HOLE MODIFICATION

NOTE: For units made prior to 11/14/97.

WARNING: UNPLUG UNIT BEFORE SERVICING.

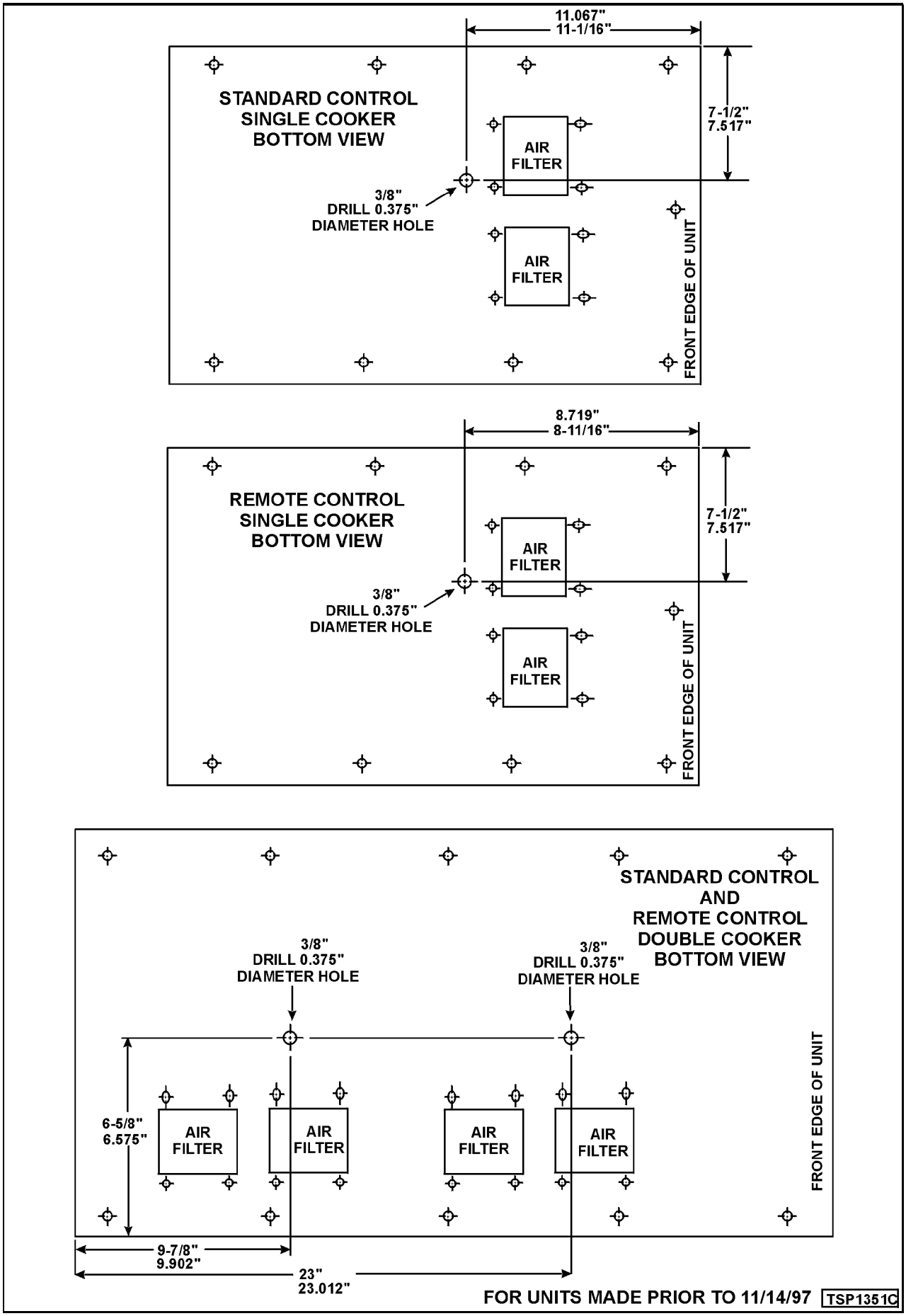
1. Remove top cover.
2. Protect inverter assembly from metal chips by sliding a paper towel or similar object under inverter in the area of the potentiometer on the low voltage board.



3. Temporarily install top cover.
4. Turn unit onto its top, being careful not to damage top.
5. Use the following charts and drill hole(s) as required by your unit.
6. To aid in preventing drill bits from going in too far to damage circuit board, put tape around drill bit ⅛" from tip. Use a small bit as a pilot bit and finish with a ⅜" drill bit.

NOTE: Be careful not to catch paper towel when drill bit breaks through base.

7. Install plug (plugs on double cooker) Part # 424881-1 into hole(s).


11.067"
11-1/16"
STANDARD CONTROL
SINGLE COOKER
BOTTOM VIEW
7-1/2"
7.517"
AIR
FILTER
3/8"
DRILL 0.375"
DIAMETER HOLE
AIR
FILTER
FRONT EDGE OF UNIT
8.719"
8-11/16"
REMOTE CONTROL
SINGLE COOKER
BOTTOM VIEW
7-1/2"
7.517"
AIR
FILTER
3/8"
DRILL 0.375"
DIAMETER HOLE
AIR
FILTER
FRONT EDGE OF UNIT
STANDARD CONTROL
AND
REMOTE CONTROL
DOUBLE COOKER
BOTTOM VIEW
3/8"
DRILL 0.375"
DIAMETER HOLE
3/8"
DRILL 0.375"
DIAMETER HOLE
6-5/8"
6.575"
AIR
FILTER
AIR
FILTER
AIR
FILTER
AIR
FILTER
FRONT EDGE OF UNIT
9-7/8"
9.902"
23"
23.012"
FOR UNITS MADE PRIOR TO 11/14/97
TSP1351C

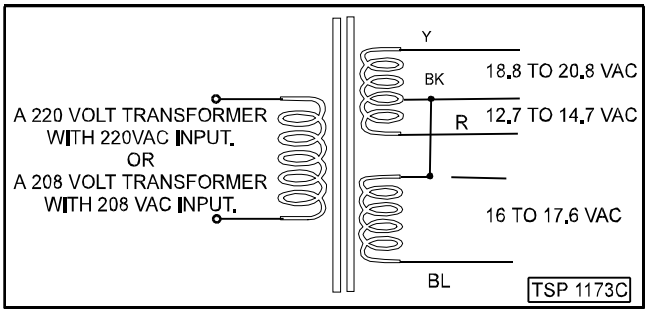
TRANSFORMER TEST

WARNING: UNPLUG UNIT BEFORE SERVICING.

1. Remove inverter coil as outlined in “INVERTER COIL”.
2. Remove high voltage board as outlined in “HIGH VOLTAGE BOARD”.
3. Unplug transformer secondary from plug WF1 on the low voltage board.
4. Remove leads connected to AC terminals which are next to transformer primary plug CN101 on the EMI board.

WARNING: THE FOLLOWING STEPS REQUIRE POWER TO BE APPLIED TO THE UNIT DURING TEST. USE EXTREME CAUTION AT ALL TIMES.

5. Apply power to unit and check voltage at transformer secondary plug as shown in diagram.



6. If test is not correct, replace the transformer.
7. Assemble in reverse order.

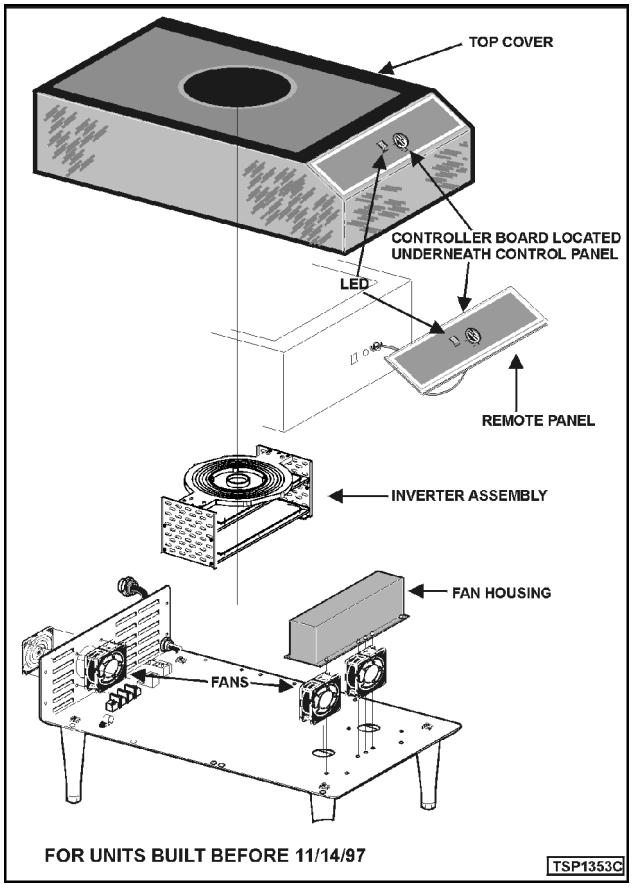
ELECTRICAL OPERATION

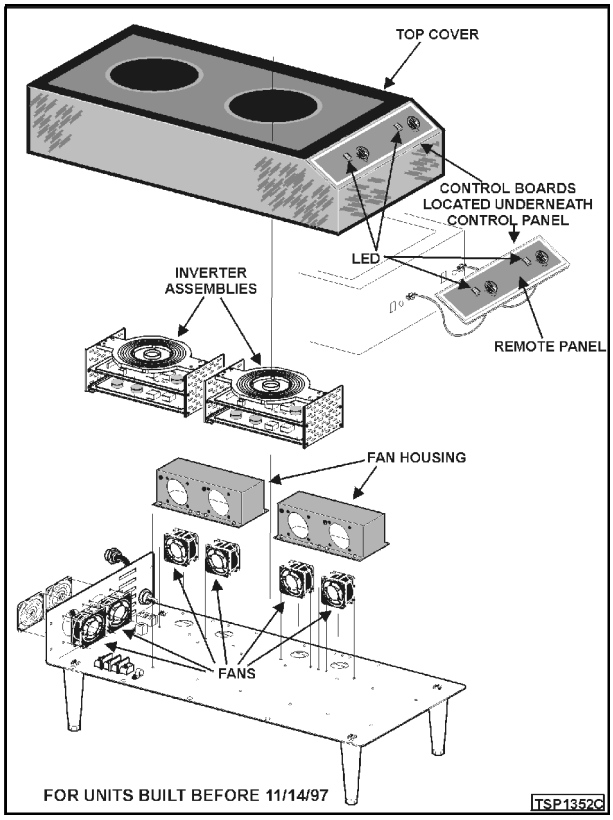
COMPONENT FUNCTION

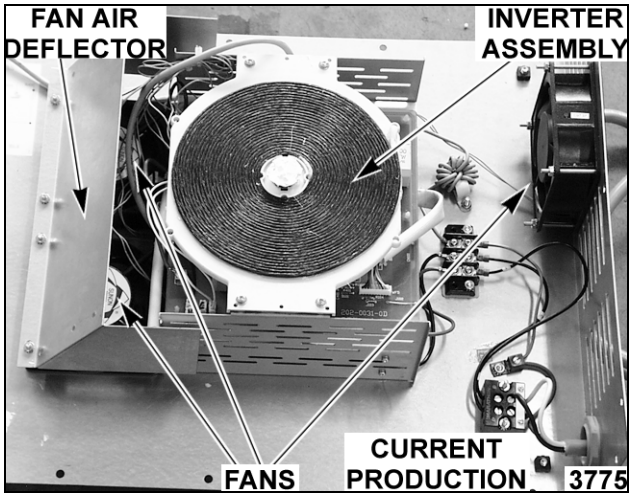
Controller Board	Inputs to the low voltage board to turn unit on or off and select cooking level.
Led	Installed on controller board and displays cooking level.
Inverter Assembly	Receives signal from controller board to produce energy for cooking.
EMI Board	Supplies voltage to the high voltage board.
Low Voltage Board	Controls high voltage board based on input from controller board.
High Voltage Board	Supplies power to the inverter coil for cooking. Supplies power to the cooling fans.
Fans	Circulate air to cool interior components.
Thermistor	Measures cooktop temperature.
Transformer	Supplies power to the memory board.
Fuse	Protects circuitry on EMI board.

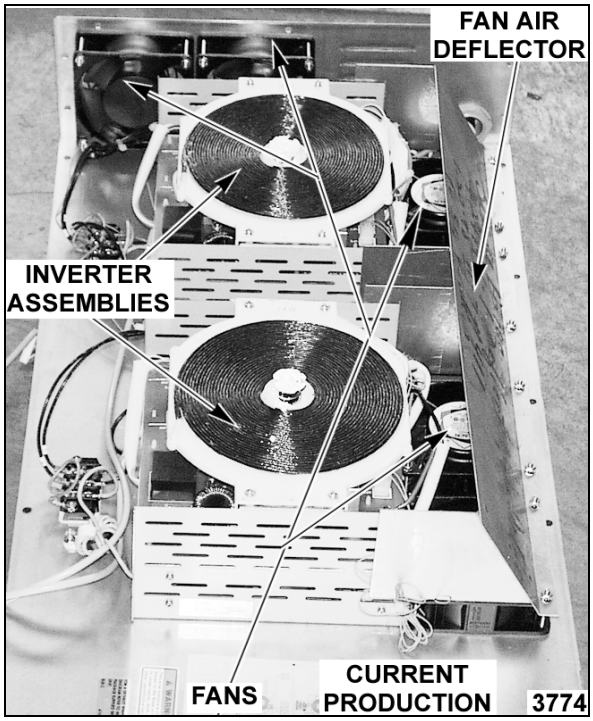
COMPONENT LOCATION

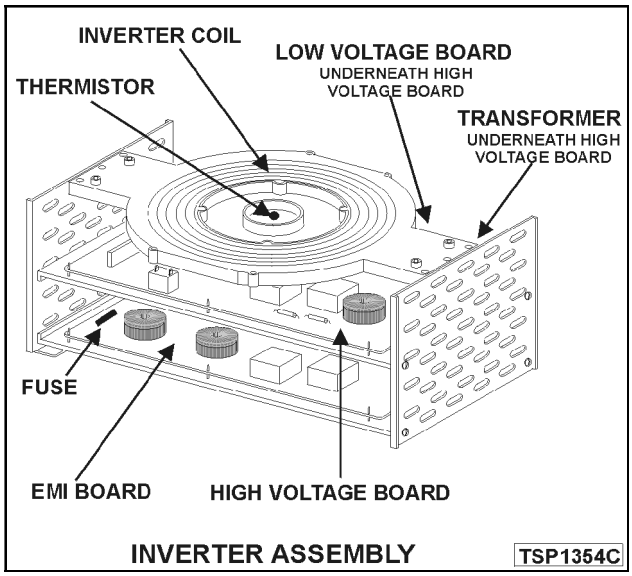
Units built before 11/14/97 have fans mounted inside the fan housing as illustrated below. Current production units have fans mounted directly to the base and a fan air deflector which directs air flow across the inverter assembly as shown in pictures.











SEQUENCE OF OPERATION

1.

Cooktop has power applied.

A. Circuit boards have power applied to them all the time the unit is plugged in and the receptacle is live.

B. Low voltage board is monitoring input from controller board.

2. Turn control knob clockwise to desired cooking level.

A. Cooling fans turn on.

B. If indicator light blinks, it indicates no pan is detected and cooktop will shut off after 3 minutes.

1) Cooktop is in stand-by mode and must be reset to continue operating.

2) Cooling fans turn off.

3) Reset cooktop by turning control knob to OFF, then back ON to desired cooking level.

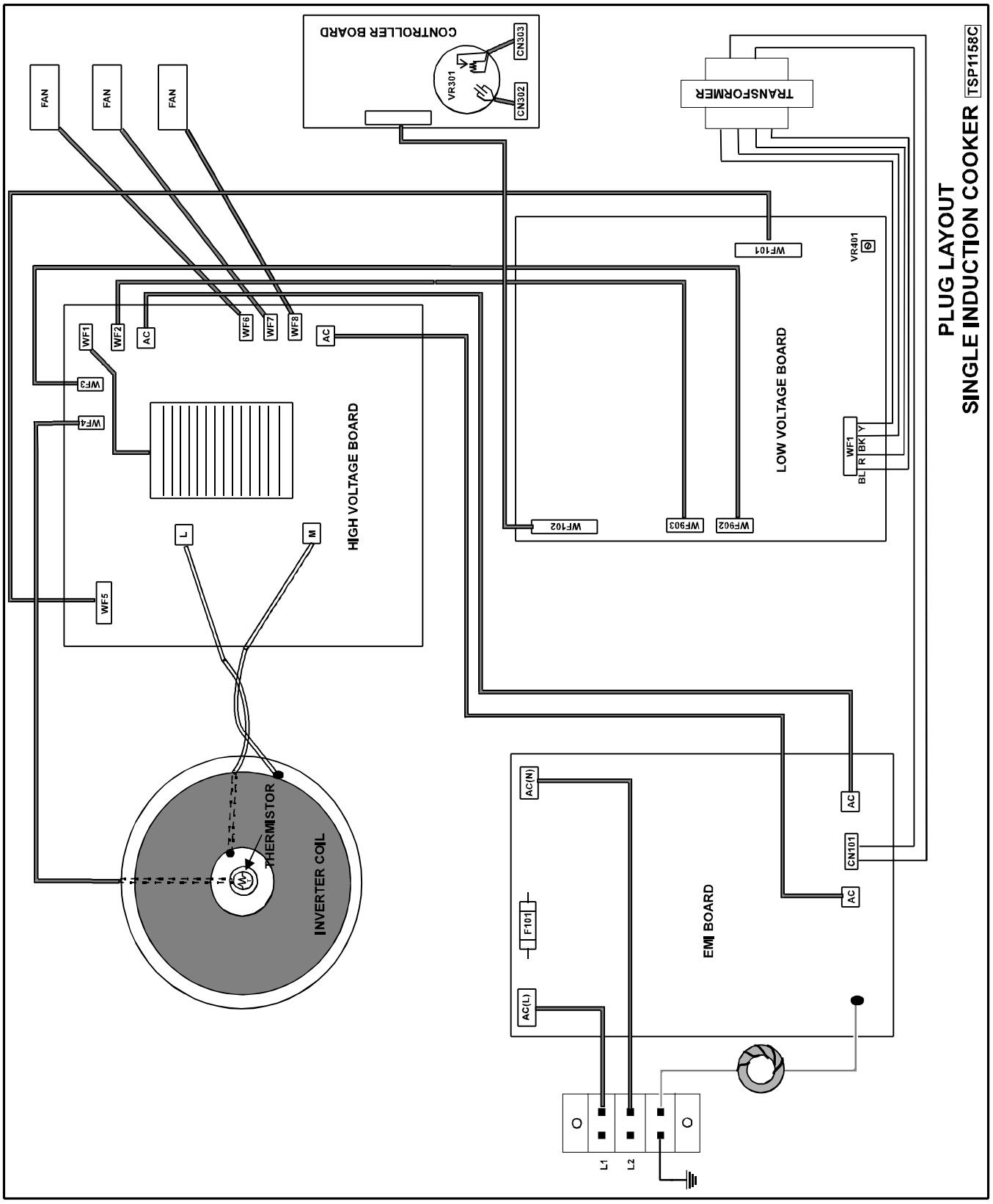
C. When pan is in place and indicator is on, cooktop is heating.

3. When cooking is finished, turn control knob counterclockwise to OFF.

A. Appliance fans may continue to run until unit is cooled.

4. Cycle repeats starting at step 1.

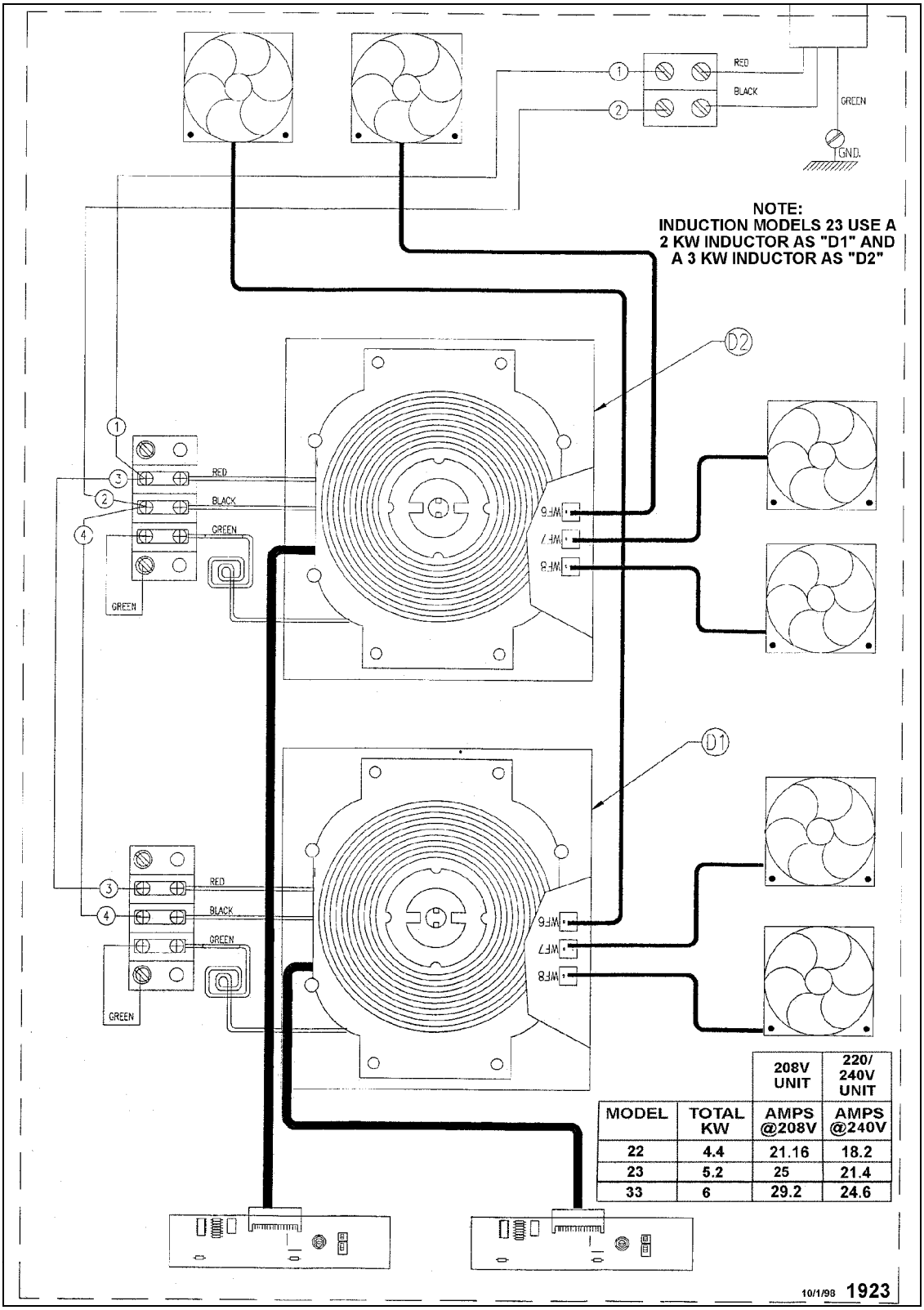
PLUG LAYOUT


PLUG LAYOUT
SINGLE INDUCTION COOKER
TSP1158C
CONTROLLER BOARD
CN303
CN302
VR301
TRANSFORMER
FAN
FAN
FAN
WF101
VR401
LOW VOLTAGE BOARD
WF1
BK
Y
R
BL
WF102
WF903
WF902
WF1
WF2
AC
WF6
WF7
WF8
AC
WF3
WF4
HIGH VOLTAGE BOARD
L
M
WF5
THERMISTOR
INVERTER COIL
AC(N)
AC
CN101
AC
F101
EMI BOARD
AC(L)
L1
L2

WIRING DIAGRAM

Double Heater

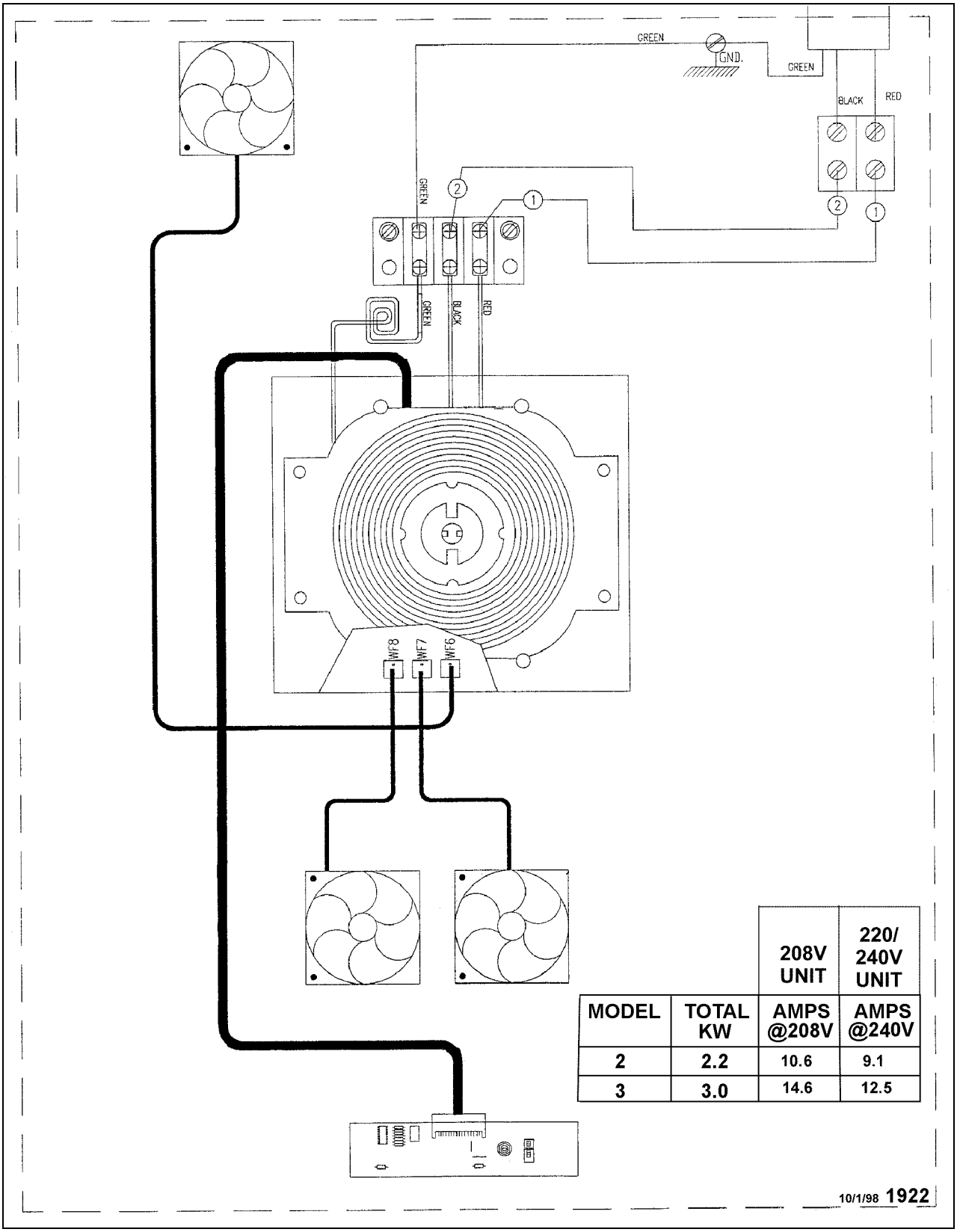
NOTE: To avoid EMI interference all wire leads should be routed as far away as possible from the inverter. Do not run power leads parallel to the control leads.



MODEL	TOTAL KW	208V UNIT AMPS @208V	220/240V UNIT AMPS @240V
22	4.4	21.16	18.2
23	5.2	25	21.4
33	6	29.2	24.6

Single Heater

NOTE: To avoid EMI interference all wire leads should be routed as far away as possible from the inverter. Do not run power leads parallel to the control leads.



MODEL	TOTAL KW	208V UNIT AMPS @208V	220/240V UNIT AMPS @240V
2	2.2	10.6	9.1
3	3.0	14.6	12.5

TROUBLESHOOTING

NOTE: Visually check boards for arcing or burn marks that could indicate a problem.

SYMPTOM	CAUSES
Indicator light blinks and then goes off after 2-3 minutes.	1. Cooker needs to be reset. Reset cooktop by turning control knob OFF, then ON to desired cooking level. **NOTE:** This is normal if a cooking level is selected and no pan is on the cooker. 2. Thermistor shorted.
Indicator light blinks intermittently and turns back on, cooks when light is not blinking. (Cooker may overheat and shut down.)	1. Filters dirty. 2. Air flow is blocked around unit. Area around unit must be kept clear. 3. Ambient temperature too high. 4. Fans not operating. **NOTE:** If items 1, 2 and 3 are checked and found to be okay, this could be a normal condition if you are cooking at high temperatures for long periods of time (i.e. cooking with oil).
Reduced heat.	1. Incorrect voltage. 2. Incorrect power output adjustment. 3. Incorrect pan.
No heating, indicator continues to flash.	1. Incorrect pan. 2. High voltage board. Check as outlined in “HIGH VOLTAGE BOARD TEST”. 3. Low voltage board. 4. Thermistor open or unplugged.
Cooker does not operate, indicator light is off.	1. Line voltage noise. Disconnect power cord, then reconnect power cord and turn unit on. (Check wire routing) 2. Incoming supply circuit breaker. 3. Fuse on EMI board. 4. High voltage board. Check as outlined in “HIGH VOLTAGE BOARD TEST”. 5. Controller board. 6. Low voltage board. 7. EMI board.
Cooker does not operate, indicator light is on.	1. High voltage board. Check as outlined in “HIGH VOLTAGE BOARD TEST”. 2. Low voltage board.
With no pan on cooker, indicator is continually on.	1. High voltage board. Check as outlined in “HIGH VOLTAGE BOARD TEST”. 2. Low voltage board.
Indicator operates but does not display all digits.	1. LED. 2. Controller board. 3. Low voltage board. 4. High voltage board. Check as outlined in “HIGH VOLTAGE BOARD TEST”.
Broken or cracked top glass.	1. Replace top.